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EXAMINER	
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2176	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/020,909	Applicant(s) KUDROLLI ET AL.	
	Examiner Amelia Rutledge	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 19 December 2001.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-28 is/are rejected.

7)☒ Claim(s) 9 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 19 December 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12/19/01.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. This application is responsive to communications: original application filed 12/19/2001.

2. Claims 1-28 are pending in the case. Claims 1, 17, 22, and 25 are independent claims.

Claim Objections

3. Claim 9 is objected to because of the following informalities: The word "accommodating" is misspelled throughout the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 1-26 and 28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

In regard to independent claims 1, 17, and 22, the combined limitations of the claims can be interpreted as a series of mental and/or manual steps (i.e., manually displaying elements of an information array within a predetermined two dimensional display space). The examiner's suggestion of changing the preamble of the claims, for example, from *"a method for displaying..."* to *"a computer executable method for displaying..."* will overcome this rejection regarding claims 1, 17, and 22.

In regard to dependent claims 2-16, 18-21, 23-24, and 28, claims 2-16, 18-21, 23-24, and 28 are rejected because they add nothing to render the claimed subject matter statutory.

In regard to independent claim 25, claim 25 is non-statutory as not being tangibly embodied in a manner so as to be executable, because the limitations of the claim do not necessarily require hardware to be implemented, therefore, the claim is at best directed to an arrangement of software, per se. For example, "*a system for displaying elements of an information array within a predetermined two dimensional display space...*" would not necessarily required hardware and so would not be tangibly embodied.

In regard to dependent claim 26, claim 26 is rejected because they because it adds nothing to render the claimed subject matter statutory.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-8, 11, 13, 16-25, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallack, U.S. Patent No. 6,055,550 issued April 2000, in view of Kanevsky, U.S. Patent No. 6,300,947 issued October 2001.

Independent claim 1 cites: *A method for displaying elements of an information array within a predetermined two dimensional display space, wherein the predetermined two dimensional display space is divided into cells formed at intersections of columns and rows, the elements of the information array have corresponding cells for display, and at least two of said elements include text, said method comprising the steps of:* Wallack teaches an auto sizing of fields system where cells are aligned in rows and columns to form a matrix (Col. 3, l. 11-30). The cell data includes text (Col. 5, l. 2-11).

Claim 1 also cites: *(a) determining display space requirement (DSR) for displaying the elements;*

While Wallack does not explicitly teach determining the display space requirement for displaying the elements, Kanevsky teaches determining the display space requirement using a parameter of display size for the original page, a web page adaptor to change the size and content of the page based on the size of the display, thus determining the display space requirement for displaying the elements of the page (Col. 6, l. 20-27, Col. 7, l. 25-41).

Both inventions are directed toward optimizing the viewing of data for a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display for a variety of display devices.

Claim 1 also cites: *(b) moderating the DSR value of any element to determine its moderated display space requirement (ModDSR) value, by reducing the DSR value of*

said element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds;

Wallack teaches the calculation of display widths of a series of sample records, these numbers are stored, and then statistical algorithms may be executed to select the optimal width (Col. 4, l. 48-Col. 5, l. 11).

Claim 1 also cites: *(c) allocating column widths and row heights, based on the ModDSR values or on values obtained by using the ModDSR values; and*

Wallack teaches the auto sizing of fields that can be applied to sizing both height and width of cells (Col. 3, l. 35-40). Wallack teaches the resetting of column widths based on the calculated values (Col. 4, l. 35-39).

Claim 1 also cites: *(d) displaying the elements in the space allocated to the corresponding cells.*

Wallack teaches that the adjustment scheme is applied to all fields visible on the output display (Col. 4, l. 46-47).

Claim 2 cites: *The method of claim 1 wherein in step (a) the DSR is determined for any text element using any one of the following steps: (a) measuring text using a uniform font size; (b) measuring text using a uniform font size which is also the permitted minimum font size; (c) measuring text using a uniform font size for each group of elements required to be displayed using a common font size; or (d) counting the number of text characters.*

While Wallack does not explicitly teach measuring text using a uniform font size, Kanevsky teaches the use of a textual transformation module that provides for textual operations on web pages to adapt them to a new size (Col. 15, l. 12-37). Possible operations include font changes (Col. 5, l. 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display including font sizing for a variety of display devices.

Claim 3 cites: *The method of claim 1 wherein in step (a) the DSR of text elements is determined after abbreviating the text.*

While Wallack does not explicitly teach measuring text using a uniform font size, Kanevsky teaches the use of a textual transformation module that provides for textual operations on web pages to adapt them to a new size (Col. 15, l. 12-37). Operations include abbreviations (Col. 15, l. 15-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display including abbreviation for a variety of display devices.

Claim 4 cites: *The method of claim 1 wherein in step (b) the value representative of the DSRs of the elements corresponding to the column or row comprises any one of: (a) average of the DSR values of the elements corresponding to the column or row, respectively; (b) average of the DSR values of the elements*

corresponding to the column or row, respectively, excluding one or more of extremely large DSR values or extremely small DSR values; (c) median of the DSR values of the elements corresponding to the column or row, respectively; or (d) any representative value derived from the DSR values of one or more elements corresponding to the column or row, respectively.

Wallack teaches the calculation of display widths of a series of sample records, these numbers are stored, and then statistical algorithms may be executed to select the optimal width, i.e. average (Col. 4, l. 48-Col. 5, l. 11). Wallack teaches setting the column width to the size of the average record size for that column.

Claim 5 cites: *The method of claim 1 wherein in step (b) the amount of reduction also depends on a measure of the space wastage which is inherent to a matrix format display.*

Wallack teaches the calculation of display widths of a series of sample records, these numbers are stored, and then statistical algorithms may be executed to select the optimal width (Col. 4, l. 48-Col. 5, l. 11). Wallack teaches setting the column width to the size of the average record size for that column. Wallack teaches the calculation to minimize the space wasted in the matrix format display, i.e., reducing the sizing of individual fields (Col. 4, l. 48-Col. 5, l. 41) instead of setting the size of all cells to the largest cell size.

Claim 6 cites: *The method of claim 1 wherein in step (c) the highest of said values corresponding to each column or to each row are used as a basis for allocating column widths or row heights, respectively.*

Wallack teaches a method where the highest values of each column are compared and collected, and used for allocating column widths (Col. 4, l. 15-34, Col. 5, l. 2).

Claim 7 cites: *The method of claim 1 wherein allocating step (c) includes: (a) measuring the lopsidedness of distribution of larger elements across columns and across rows; and (b) depending upon whether the lopsidedness is greater across columns or across rows, allocating column widths or row heights, respectively, as a first allocation and thereafter in a second allocation allocating row heights or column widths, respectively.*

Wallack teaches a method for auto sizing of fields, with techniques that may be applied to the sizing of height and width for selected columns, rows, and cells (Col. 3, l. 35-39).

Claim 8 cites: *The method of claim 1 wherein in step (c) said values obtained by using the ModDSR values depend on a measure of relative lopsidedness across columns and across rows.*

Wallack teaches a method for auto sizing of fields, with techniques that may be applied to the sizing of height and width for selected columns, rows, and cells (Col. 3, l. 35-39). Wallack teaches a method for optimizing the size of a selected column (Col. 4, l. 48-Col. 5, l. 11) that could also be applied to rows, allowing a comparison of the relative fit of average values for each.

Claim 11 cites: *The method of claim 1 wherein said predetermined two dimensional display space is determined by the system by calculating the minimum space required to display the information array elements in matrix format.*

Wallack teaches a method of calculating the minimum space required to display elements in matrix format (Col. 4, l. 15-Col. 5, l. 11).

Claim 13 cites: *The method of claim 1 wherein one or more elements of the information array include images, in addition to or instead of text strings, and the images are reduced in size to reduce their DSR.*

While Wallack does not explicitly teach the reduction of image size, Kanevsky teaches the reduction of icon images to reduce the amount of display space required (Col. 15, l. 38-41). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display including the resizing of images for a variety of display devices.

Claim 16 cites: *The method of claim 1 wherein the displaying step (d) includes printing.*

While Wallack does not explicitly teach a displaying step that includes printing, Kanevsky teaches the use of adapted URL data for the reformatted page stored on the client computer (Col. 18, l. 1-20). Kanevsky teaches the use of a client machine that runs a web browser program (Col. 4, l. 64-65). A typical web browser such as Internet Explorer contains menus that allow the user to print a web page, i.e., URL information. It would have been obvious to one of ordinary skill in the art at the time of the invention that the displaying step of outputting the document to a web browser would also include printing of the reformatted document. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that

the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display including the resizing of images for a variety of display and output devices.

Independent claim 17 cites: *A method for displaying elements of an information array within a predetermined two dimensional display space, wherein the predetermined two dimensional display space is divided into cells formed at intersections of columns and rows, the elements of the information array have corresponding cells for display, and at least two of said elements include text, said method comprising the steps of:*

Wallack teaches an auto sizing of fields system where cells are aligned in rows and columns to form a matrix (Col. 3, l. 11-30). The cell data includes text (Col. 5, l. 2-11).

Claim 17 also cites: *(a) determining display space requirement (DSR) for displaying the elements;*

While Wallack does not explicitly teach determining the display space requirement for displaying the elements, Kanevsky teaches determining the display space requirement using a parameter of display size for the original page, a web page adaptor to change the size and content of the page based on the size of the display, thus determining the display space requirement for displaying the elements of the page (Col. 6, l. 20-27, Col. 7, l. 25-41).

Both inventions are directed toward optimizing the viewing of data for a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing

method that could be applied to a document page, providing customized display for a variety of display devices.

Claim 17 also cites: *(b) determining moderated display space requirement (ModDSR) values for elements corresponding to each column or to each row;*
Wallack teaches determining values to adjust the sizing of height and width for selected rows, columns, and fields (Col. 3, l. 35-39), by determining the display width required to fully display the text or widget in the corresponding cell (Col. 4, l. 15-18).

Claim 17 also cites: *(c) measuring the lopsidedness of distribution of larger elements across columns and across rows;*

(d) depending upon whether the lopsidedness is greater across columns or across rows, allocating column widths or row heights, respectively, as a first allocation based on ModDSR values or on values obtained by using the ModDSR values and thereafter in a second allocation allocating row heights or column widths, respectively;
Wallack teaches the implementation of algorithms to optimize the width size of a selected column (Col. 5, l. 1-2). Wallack teaches that the same methods for determining values of the columns can be applied to adjust the sizing of height and width for selected rows, columns, and fields (Col. 3, l. 35-39).

Claim 17 also cites: *(e) displaying the elements in the space allocated to the corresponding cells.*
Wallack teaches that the adjustment scheme is applied to all fields visible on the output display (Col. 4, l. 46-47).

Claim 18 cites: *The method of claim 17 wherein in step (b) said ModDSR values are determined by reducing the DSR value of each said element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds.*

Wallack teaches the implementation of algorithms to optimize the width size of a selected column (Col. 5, l. 1-2). Wallack does not explicitly teach reducing the DSR value of each element so that the amount of reduction depends on the difference between element and row or column DSR values, however, Kanevsky teaches the use of a Finite State Automaton to reduce items for display (Col. 3, l. 1-20), used in conjunction with a calculation of total available display size compared to original page size (Col. 10, l. 17-27), i.e. reducing element display space by the difference between the DSR value for the page and the DSR value for each element calculated by the Finite State Automaton. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack, so that the user would have the benefit of an auto sizing method that could be applied to either a table or document page, providing a reduced but semantically understandable display for a variety of display devices.

Regarding dependent claims 19-21, claims 19-21 incorporate substantially similar subject matter as claimed in claims 5, 6, and 8, respectively, and are rejected along the same rationale.

Independent claim 22 cites: *A method for displaying elements of an information array within a predetermined two dimensional display space, wherein, the elements of the information array have corresponding cells arranged into columns or rows for displaying in the predetermined two dimensional display space and at least two of said elements include text, said method comprising the steps of:*

Wallack teaches an auto sizing of fields system where cells are aligned in rows and columns to form a matrix (Col. 3, l. 11-30). The cell data includes text (Col. 5, l. 2-11).

Claim 22 also cites: *(a) determining display space requirement (DSR) for displaying the elements;*

While Wallack does not explicitly teach determining the display space requirement for displaying the elements, Kanevsky teaches determining the display space requirement using a parameter of display size for the original page, a web page adaptor to change the size and content of the page based on the size of the display, thus determining the display space requirement for displaying the elements of the page (Col. 6, l. 20-27, Col. 7, l. 25-41).

Both inventions are directed toward optimizing the viewing of data for a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display for a variety of display devices.

Claim 22 also cites: *(b) checking whether the predetermined two dimensional display space is adequate for displaying the information array elements in a matrix*

format and, if found to be inadequate, executing the following steps; (c) allocating column widths or row heights in proportion to the total of the DSR values of the elements corresponding to the cells arranged into each corresponding column or row, respectively;

Wallack teaches that the display width is calculated for each sample record, which are then averaged together (Col. 4, l. 48-Col. 5, l. 11). Wallack also teaches that if a statistically set width is too large or small for a column then the auto sizing of fields system narrows or widens the column width to an optimal size (Col. 5, l. 12-41). Therefore column widths are allocated in proportion to the total display space required by all record elements in the column.

Claim 22 also cites: *(d) within each column or row, allocating height or width, respectively, to cells in proportion to the DSR values of the elements corresponding to the cells within each such column or row, respectively; and*

Wallack teaches the implementation of algorithms to optimize the width size of a selected column (Col. 5, l. 1-2). Wallack teaches that the same methods for determining values of the columns can be applied to adjust the sizing of height and width for selected rows, columns, and fields (Col. 3, l. 35-39).

Claim 22 also cites: *(e) displaying the elements in the space allocated to the corresponding cells.*

Wallack teaches that the adjustment scheme is applied to all fields visible on the output display (Col. 4, l. 46-47).

Claim 23 cites: *The method of claim 22 wherein step (b) includes: (a) resolving the DSR values of the elements to their corresponding cell widths and cell heights; (b) for each column, setting the column width equal to the largest cell width in that column; (c) for each row, setting the row height equal to the largest cell height in that row; (d) calculating the space required for matrix format display, by using the widths and heights determined in steps (b) and (c); and*

Wallack teaches the implementation of algorithms to optimize the width size of a selected column (Col. 5, l. 1-2). Wallack teaches that the same methods for determining values of the columns can be applied to adjust the sizing of height and width for selected rows, columns, and fields (Col. 3, l. 35-39). Wallack teaches setting row or column height equal to the largest cell in the row or column (Col. 4, l. 15-47). Wallack teaches calculating the space required for matrix format display (Col. 6, l. 49-60).

Claim 23 also cites: *(e) comparing the space required for matrix format display with the predetermined two dimensional display space to determine whether the information array elements can be displayed in a matrix format.*

Wallack does not explicitly teach comparing the space required for matrix format display with the available display space, however, Kanevsky teaches the use of a Finite State Automaton to reduce items for display (Col. 3, l. 1-20), used in conjunction with a calculation of total available display size compared to original page size (Col. 10, l. 17-27), i.e. reducing element display space by the difference between the DSR value for the page and the DSR value for each element calculated by the Finite State Automaton.

Therefore, Kanevsky determines the display format of items depending on available display space, displaying more elements when the space is larger and fewer when the space is smaller (Col. 2, l. 20-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack, so that the user would have the benefit of an auto sizing method that would provide a reduced but semantically understandable display in matrix or table format that had been reformatted for a variety of display devices.

Claim 24 cites: *The method of claim 22 further including, using a colour or shading pattern in cells to make up for loss of alignment of cells across columns or across rows, respectively.*

While Wallack does not teach the use of a color or shading pattern to make up for loss of alignment, Kanevsky teaches the use of a Finite State Automaton to determine elements from the page, and apply rules determined by the available size of display; the rules would require actions, for example "underline" in response to some URL script elements (Col. 3, l. 3-19). More complex sequences of states and rules could be used for interpreting icons. Further, Kanevsky teaches how a module can interpret a symbol as a decorative element, an underlying element, or a separation element (e.g., separating different parts of the page (Col. 9, l. 46-Col. 10, l. 35). Therefore, the Finite State Automaton taught by Kanevsky could implement rules including using a color or shading pattern in cells to convey separation, and to make up for loss of alignment of cells and reduction of screen data. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack, so that the user would

have the benefit of an auto sizing method that would provide a reduced but semantically understandable display in matrix or table format that had been reformatted for a variety of display devices.

Regarding independent claim 25, claim 25 reflects the system used for implementing the method as claimed in claim 1, and is rejected along the same rationale.

Claim 27 cites: *A computer-readable medium embodying the method in claim 1.* Wallack teaches a general purpose computer system on which the auto sizing of fields may be implemented (Col. 7, l. 1-Col. 8, l. 13).

Claim 28 cites: *A compacted display format generated by employing the method in claim 1.*

While Wallack does not explicitly teach a compacted display format, Kanevsky teaches the generation of a compacted display format for a variety of devices (Col. 1, l. 56-Col. 2, l. 44) . It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack, so that the user would have the benefit of an auto sizing method that would provide a reduced but semantically understandable display in matrix or table format that had been reformatted for a variety of display devices.

8. Claims 9, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallack in view of Kanevsky, as applied to claims 1-8, 10, 11,

13, 16-25, 27, above, and further in view of Mercer, U.S. Patent No. 6,547,830 issued April 2003.

Claim 9 cites: *The method of claim 1 further comprising any one of: (a) selecting the largest possible font size, from within a permitted font size range, for accomodating each element within the display space allocated to the corresponding cell; (b) selecting the largest possible uniform font size, from within a permitted font size range, for accomodating the elements within the predetermined two dimensional display space; or (c) selecting the largest possible set of multiple uniform font sizes, from within a permitted font size range, for accomodating the elements within the predetermined two dimensional display space with font size variations based on relative font size differences indicated in a source file.*

While Wallack in view of Kanevsky does not explicitly teach selecting the largest possible font size from within a permitted font size range, Mercer teaches selecting the largest possible font size from within a permitted range (Col. 7, l. 1-60). The inventions of Wallack in view of Kanevsky and Mercer are directed toward optimizing the size of a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Mercer to Wallack in view of Kanevsky, so that the user would have the benefit of a reduced display that would maximize the amount of text displayed (Mercer Col. 1, l. 15-18).

Claim 10 cites: *The method of claim 9 wherein selecting the largest possible font size is supported by at least one of the following steps: (a) abbreviating text; (b) reducing internal leading space between lines of text; or (c) reducing image size.*

While Wallack does not explicitly teach abbreviating text, Kanevsky teaches the abbreviation of text (Col. 15, l. 12-37). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Kanevsky to Wallack so that the user would have the benefit of an auto sizing method that could be applied to a document page, providing customized display including abbreviation for a variety of display devices.

Claim 15 cites: *The method of claim 1 wherein at least one cell is a joined cell formed by joining contiguous cells in a column or in a row.*

While Wallack in view of Kanevsky does not explicitly teach that one cell is a joined cell formed by joining contiguous cells in a column or row, Mercer teaches a vertical distance reduction method in which multiple adjacent units of vertical distance are reduced to a single unit, for example, by replacement of multiple ASCII codes with a single ASCII code (Col. 7, l. 66-Col. 8, l. 39). In alternate embodiments, the number of units may be divided by a predetermined number. The inventions of Wallack in view of Kanevsky and Mercer are directed toward optimizing the size of a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Mercer to Wallack in view of Kanevsky, so that the user would have the benefit of a reduced display that would maximize the amount of text displayed (Mercer Col. 1, l. 15-18).

9. Claims 12, 14, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallack in view of Kanevsky, 1-8, 10, 11, 13, 16-25, 27, above,

and further in view of Qureshi et al. (hereinafter "Qureshi"), U.S. Patent No. 6,456,305 issued September 2002.

Claim 12 cites: *The method of claim 11 wherein said calculating step is executed with regard to user's preferences relating to at least one of: (a) permitted font size range; (b) acceptable extent of text abbreviation; or (c) internal leading space reduction option.*

While Wallack in view of Kanevsky does not explicitly teach executing the calculating step in regard to user's preferences, Qureshi teaches a method and system for automatically sizing and positioning a graphical display of objects to fit the dimensions of a display window (Abstract), in which a user can select a minimum and maximum size of font for resizing (Col. 5, l. 19-24) thus specifying the permitted font size range. The inventions of Wallack in view of Kanevsky and Qureshi are directed toward optimizing the size of a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Qureshi to Wallack in view of Kanevsky, so that the user would have the benefit of setting the display parameters when rescaling a page.

Claim 14 cites: *The method of claim 13 wherein, while reducing the images, the proportion of reduction is less for a smaller image and more for a larger image.*

While Wallack in view of Kanevsky does not explicitly teach that while reducing the image, the proportion of reduction is less for a smaller image and more for a larger image, Qureshi discloses the reduction of images proportional to a display window by calculating a scalar when changing the dimensions of the image object and display

space (Col. 10, l. 17-25, l. 47-63). The explicit dimensions of the image objects are multiplied by the scalar (Col. 15, l. 1-10). Further, the user has the option of setting the aspect ratio and whether the image will be resized (Fig. 1.1) thus allowing the user to set a proportion of reduction for the image on the selected page. The inventions of Wallack in view of Kanevsky and Qureshi are directed toward optimizing the size of a display. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Qureshi to Wallack in view of Kanevsky, so that the user would have the benefit of controlling the proportion of images and keeping the aspect ratio of page objects.

Claim 26 cites: *The system of claim 25 further comprising at least one of the following: (a) means for specifying acceptable extent of text abbreviation; (b) means for specifying permitted font size range; (c) means for selecting internal leading space reduction; (d) means for selecting allocation of column widths or row heights as a first allocation; (e) means for selecting font sizes for display in cells; or (f) means for using abbreviated form of text elements for determining DSR values.*

While Wallack in view of Kanevsky does not explicitly teach a means for specifying the permitted font size range, Qureshi teaches a method and system for automatically sizing and positioning a graphical display of objects to fit the dimensions of a display window (Abstract), in which a user can select a minimum and maximum size of font for resizing (Col. 5, l. 19-24) thus specifying the permitted font size range. Qureshi teaches a graphical user interface for selection of the range (Col. 15, l. 45-Col. 16, l. 19, Fig. 11). The inventions of Wallack in view of Kanevsky and Qureshi are directed toward optimizing the size of a display. It would have been obvious to one of ordinary skill in

the art at the time of the invention to apply Qureshi to Wallack in view of Kanevsky, so that the user would have the benefit of setting the display parameters when rescaling a page.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Batchelder et al.	U.S. Patent No. 5,691,708	issued	November 1997

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amelia Rutledge whose telephone number is (571) 272-7508. The examiner can normally be reached on Monday - Friday 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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AR

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